

CORRECTED VERSION

(19) World Intellectual Property Organization
International Bureau(43) International Publication Date
29 September 2005 (29.09.2005)

PCT

(10) International Publication Number
WO 2005/089637 A3(51) International Patent Classification⁷: **A61B 5/00**(21) International Application Number:
PCT/US2005/007652

(22) International Filing Date: 10 March 2005 (10.03.2005)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
60/552,249 11 March 2004 (11.03.2004) US
60/570,690 13 May 2004 (13.05.2004) US(71) Applicant (for all designated States except US): **THE GENERAL HOSPITAL CORPORATION** [US/US]; 55 Fruit Street, Boston, Massachusetts 02114 (US).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **NTZIACHRISTOS, Vasilis** [GR/US]; 42 8th Street, Suite 1525, Charlestown, Massachusetts 02129 (US). **RIPOLL, Jorge** [ES/GR]; 1 Mpaglamadaki Paizei, Ano Archanes, GR-70200 Heraklion, Crete (GR). **ZACHARAKIS, Giannis** [GR/GR]; 3 Killinis Str., GR-71305 Heraklion, Crete (GR).(74) Agents: **ROBINSON, Kermit** et al.; Suite 101, 275 Turnpike Street, Canton, Massachusetts 02021 (US).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

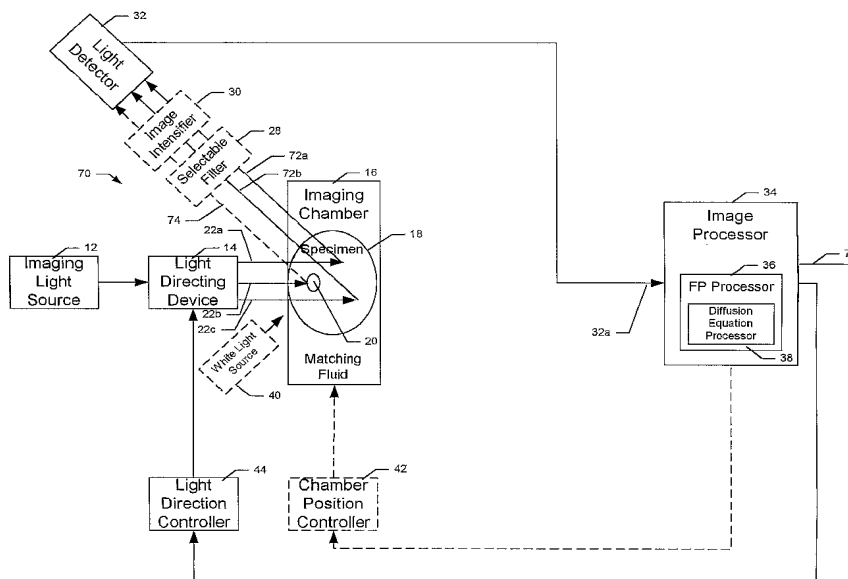
(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Declarations under Rule 4.17:

— as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii)) for all designations

[Continued on next page]

(54) Title: METHOD AND SYSTEM FOR TOMOGRAPHIC IMAGING USING FLUORESCENT PROTEINS



(57) Abstract: A system for optical tomography includes an apparent light source adapted to project excitation light toward a specimen having fluorescent proteins therein, wherein the excitation light enters the specimen becoming intrinsic light within the specimen, wherein the intrinsic light is adapted to excite fluorescent light from the fluorescent proteins, and wherein the intrinsic light and the fluorescent light are diffuse. A method of optical tomography includes generating the excitation light with the apparent light source, wherein the intrinsic light and the fluorescent light are diffuse.

WO 2005/089637 A3



- *as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii)) for all designations*
- *as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii)) for all designations*
- *of inventorship (Rule 4.17(iv)) for US only*

Published:

- *with international search report*

(88) Date of publication of the international search report:
12 January 2006

(48) Date of publication of this corrected version:

16 March 2006

(15) Information about Correction:

see PCT Gazette No. 11/2006 of 16 March 2006, Section II

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.